



B I P T

**BELGIAN INSTITUTE FOR POSTAL SERVICES
AND TELECOMMUNICATIONS**

**CONSULTATION ON
THE DRAFT DECISION OF THE BIPT COUNCIL
ON
THE TECHNICAL AND OPERATIONAL CONDITIONS REGARDING THE
MOBILE COMMUNICATION SERVICES ON AIRCRAFT**

TO RESPOND TO THIS DOCUMENT:

Reference CONSULT-2017-A3
Deadline: Until 3 March 2017
Contact person: Michaël Vandroogenbroek (02 226 88 11)
E-mail your reactions to: consultation.sg@ibpt.be

Reactions are to be sent by electronic way only.

Please use the specific form available at the following address as a cover page for your reaction:
http://www.ibpt.be/public/files/fr/21126/formulaire_consultation_FR.pdf.

Confidential parts in this document should be clearly indicated.

BIPT wishes the comments to refer to the paragraphs and/or sections they are covering.

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1. Introduction

This Decision deals with the technical and operational conditions for the use of radio frequencies in order to offer MCA services¹.

This Decision complies with Decision 2008/294/EC², as amended by Decisions 2013/654/EU³ and 2016/2317/EU⁴.

2. Legal framework

The technical and operational conditions for the use of radio frequencies in order to offer MCA services are already laid down by Article 4 and the annex of the Royal Decree of 15 July 2013 *regarding mobile communication services on aircraft*. These conditions should comply with the latest version of Decision 2008/294/EC.

Since the entry into force of the Act of 27 March 2014 *pertaining to various provisions regarding electronic communications*, these conditions are no longer laid down by the King but by BIPT: under Article 18, §1, subparagraph 2, 1° of the Act of 13 June 2005 *on electronic communications*, the technical and operational conditions necessary to avoid harmful interference are laid down by BIPT.

3. Cooperation agreement

BIPT sent the draft of this decision to the community regulatory bodies in accordance with the procedure described under subparagraphs 1 and 2 of Article 3 of the cooperation agreement of 17 November 2006:

"Art. 3. Draft decisions of a regulatory body relating to electronic communications networks are sent by this body to the other regulatory bodies listed in Article 2, 2°, of this cooperation agreement.

The regulatory bodies consulted make their comments to the regulatory body that has sent the draft decision, within 14 calendar days."

[Reactions]

4. Decision

1. The definitions of Article 1 of the Royal Decree of 15 July 2013 *regarding mobile communication services on aircraft* apply to this Decision.
2. The use of radio frequencies in order to offer MCA services complies with the technical and operational conditions described in the Annex.

¹ *Mobile communication services on aircraft*

² Commission Decision of 7 April 2008 *on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) in the Community*

³ Commission Implementing Decision of 12 November 2013 *amending Decision 2008/294/EC to include additional access technologies and frequency bands for mobile communications services on aircraft (MCA services)*

⁴ Commission Implementing Decision of 16 December 2016 *amending Decision 2008/294/EC and Implementing Decision 2013/654/EU, in order to simplify the operation of mobile communications on board aircraft (MCA services) in the Union*

5. Appeal procedures

In accordance with Article 2, §1 of the Act of 17 January 2003 on the appeals and the settling of lawsuits following the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors, you have the possibility to lodge an appeal against this decision before the Brussels Court of Markets, Place Poelaert 1, B-1000 Brussels. The appeals shall be lodged, on penalty of nullity pronounced automatically, by filing a signed request with the court registry of the Brussels Court of Appeal within a period of sixty days starting from the notification of the decision, or in the absence of such notification, from the publication of the decision, or in the absence of such publication, from the inspection of the decision.

On penalty of nullity the request shall contain all the indications required by Article 2, §2 of the Act of 17 January 2003 on the appeals and the settling of lawsuits following the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors. If the request contains elements that you consider to be confidential, you have to explicitly mention it and submit, on penalty of nullity, a non-confidential version of it. The Institute publishes the request notified by the court registry on its website. Any interested party may intervene in the case within 30 days of such publication.

Axel Desmedt
Member of the Council

Jack Hamande
Member of the Council

Luc Vanfleteren
Member of the Council

Michel Van Bellinghen
Chairman of the Council

Annex. Technical conditions

A1. Frequency bands and systems allowed for MCA Services

Type	Frequency	System
GSM1800	1710-1785 MHz (uplink) 1805-1880 MHz (downlink)	Complying with the GSM Standards as published by ETSI, in particular EN 301 502, EN 301 511 and EN 302 480, or equivalent specifications
UMTS 2100	1920-1980 MHz (uplink) 2110-2170 MHz (downlink)	Complying with the UMTS Standards as published by ETSI, in particular EN 301 908-1, EN 301 908-2, EN 301 908-3 and EN 301 908-11, or equivalent specifications
LTE 1 800	1710-1785 MHz (uplink) 1805-1880 MHz (downlink)	Complying with LTE Standards, as published by ETSI, in particular EN 301 908-1, EN 301 908-13, EN 301 908-14, and EN 301 908-15, or equivalent specifications

Table 1

A2. Prevention of connection of mobile terminals to ground networks

During the period in which the operation of MCA services is allowed on board aircraft, mobile terminals in the frequency bands listed in Table 2 must be prevented from attempting to register with terrestrial mobile communications networks.

Mobile terminals receiving within the frequency bands listed in Table 2 must be prevented from attempting to register with UMTS mobile networks on the ground:

- by the inclusion, in the MCA system, of a Network Control Unit (NCU), which raises the noise floor inside the cabin in mobile receive bands, and/or
- by aircraft fuselage shielding to further attenuate the signal entering and leaving the fuselage.

Frequency bands	Systems on the ground
925-960 MHz	UMTS (and GSM, LTE)
2110-2170 MHz	UMTS (and LTE)

Table 2

MCA operators may also decide to implement an NCU in the other frequency bands listed in Table 3.

Frequency bands	Systems on the ground
460-470 MHz	LTE
791-821 MHz	LTE
1805-1880 MHz	LTE and GSM
2620-2690 MHz	LTE
2570-2620 MHz	LTE

Table 3

A3. Technical parameters

a) Power from the NCU and aircraft BTS

The total power, outside the aircraft, from the NCU and aircraft BTS must not exceed:

Height above ground (m)	Maximum e.i.r.p. from the NCU and aircraft BTS outside the aircraft		
	925-960 MHz dBm/3.84 MHz	1805-1880 MHz dBm/200 kHz	2110-2170 MHz dBm/3.84 MHz
3000	-6.2	-13.0	1.0
4000	-3.7	-10.5	3.5
5000	-1.7	-8.5	5.4
6000	-0.1	-6.9	7.0
7000	1.2	-5.6	8.3
8000	2.3	-4.4	9.5

Table 4

When MCA operators decide to implement an NCU in the frequency bands listed in Table 3, the total power, outside the aircraft, from the NCU and aircraft BTS in these frequency bands must not exceed:

Height above ground (m)	Maximum e.i.r.p. from the NCU and aircraft BTS outside the aircraft			
	460-470 MHz dBm/1.25 MHz	791-821 MHz dBm/10 MHz	1805-1880 MHz dBm/200 kHz	2570-2690 MHz dBm/4.75 MHz
3000	-17.0	-0.87	-13.0	1.9
4000	-14.5	1.63	-10.5	4.4
5000	-12.6	03:57	-8.5	6.3
6000	-11.0	05:15	-6.9	7.9
7000	-9.6	06:49	-5.6	9.3
8000	-8.5	7.65	-4.4	10.4

Table 5

b) Power from the terminals

The power, outside the aircraft, from a terminal must not exceed:

Height above ground (m)	Maximum e.i.r.p. from a terminal outside the aircraft		
	GSM1800 dBm/200 kHz	LTE 1 800 dBm/5 MHz	UMTS 2100 dBm/3.84 MHz
3000	-3.3	1.7	3.1
4000	-1.1	3.9	5.6
5000	0.5	5	7
6000	1.8	5	7
7000	2.9	5	7
8000	3.8	5	7

Table 6

c) Operational requirements

The aircraft BTS, while in operation, must limit the transmit power of all terminals aboard at all stages of communication, including initial access, to a nominal value of:

- 0 dBm/200 kHz for GSM mobile terminals;
- -6 dBm/3.84 MHz for UMTS mobile terminals;
- 5 dBm/5 MHz for LTE mobile terminals.

The MCA operator takes the necessary measures to ensure that every terminal aboard is switched off when the NCU is not in operation.